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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,834	61/11/2002	Stephen M. Dye	45739/55,813	8073
7:	590 07/12/2004		EXAM	INER
ESEMDE, Inc			GARY, E	RIKA A
Boca Raton, F	leral Highway #202 L 33487-1620		ART UNIT	PAPER NUMBER
			2681	

DATE MAILED: 07/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Technology Center 2600

9) The specification is objected to by the Examiner. 10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. Priority under 35 U.S.C. § 119 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. Attachment(s) 1) Notice of References Cited (PTO-892) Attachment(s) 1) Interview Summary (PTO-413) Paper No(s)/Mail Date				
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				U.S. P	TENT DOCUME	NTS		
*		Document Number Country Code-Number-Kind Code	Date MM-YYYY			Name		Classification
	Α	US-6,208,870	03-2001	Lorello	et al.			455/466
	В	US-2002/0086689	07-2002	Moran	et al.			455/466
	С	US-6,535,746	03-2003	Yu et al		0_00		455/466
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Application/Control No.

Applicant(s)/Patent Under

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)

Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Art Unit: 2681

DETAILED ACTION

Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holmes et al., US Patent Number 6,134,432 (hereinafter Holmes) in view of Moran et al., US Patent Application Publication Number 2002/0086689 (hereinafter Moran) further in view of Drory et al., US Patent Application Publication Number 2002/0049817 (hereinafter Drory).

Regarding claim 1, Holmes discloses a system for providing one or more personal communication system carriers, operating using one or more air interface protocols carriers, with a plurality of wireless applications from one or more wireless application operators, the system comprising: a network, having a plurality of system interconnections; and a mobile virtual network operator platform; wherein the mobile virtual network platform comprises: one or more short message service centers; a short message service center interface that enables the network operator platform to communicate with the one or more personal communication system carriers through the one or more short message service centers using one or more air interface access techniques; and an application aggregation device that enables the network operator platform to communicate with said one or more wireless application operators, further enabling the network operator platform to provide one or more wireless applications to a plurality of remote user units

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Application/Control Number: 10/044,834

Art Unit: 2681

through one or more personal communications system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Moran teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [figs. 3, 6; paragraphs 0025, 0027, 0028]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Moran, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Moran and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Moran discusses the need for interoperability across different types of networks [paragraph 0025].

Regarding claim 2, Holmes discloses the network comprises one or more personal communication networks [col. 2: lines 38-46].

Regarding claim 3, Holmes discloses the network further comprises a plurality of devices selected from the group consisting of remote wireless units, telematic units, and telemetry units [fig. 3; col. 3: lines 11-14].

Art Unit: 2681

Regarding claim 4, Holmes discloses the one or more air interface standards comprises a standard from the group consisting of global standards for mobile communications (GSM), time division multiplexing access (TDMA), frequency division multiplexing access (FDMA), code division multiplexing access (CDMA), and integrated digital enhanced network (iDEN) [col. 2: lines 38-46].

Regarding claim 5, Holmes discloses the network can communicate with a network selected from the group consisting of a Personal Communication System (PCS) network, a Cellular network, a Special Mobile Radio (SMR) network, and an iDen wireless network [col. 1: line 66 – col. 2: line 3].

Regarding claim 6, Holmes discloses the mobile virtual operator network platform can communicate with one or more users of at least one network selected from the group consisting of a Personal Communication System (PCS) network, a Cellular network, a Special Mobile Radio (SMR) network, and an iDen wireless network [col. 1: line 66 – col. 2: line 3].

Regarding claim 7, Holmes discloses the system further comprises a short messaging service center that communicates with a least one of the wireless application operators and a least one personal communication system (PCS) carrier via a short message service center interface [col. 1: line 66 – col. 2: line 3].

Regarding claim 8, Holmes discloses the short message service center can communicate with multiple wireless application operator operating on at least one of similar and dissimilar wireless networks [col. 2: lines 48-52].

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Application/Control Number: 10/044,834

Art Unit: 2681

Regarding claim 9, Holmes discloses the short message service center communicates with the at least one PCS carrier via the mobile virtual network operator platform [col. 1: line 66 – col. 2: line 3; col. 2: lines 48-52].

Regarding claim 10, Holmes discloses the mobile virtual network operator platform communicates with one or more databases [fig. 3].

Regarding claim 11, it is inherent for the system to further comprise a public switched telephone network that is in communication with the network.

Regarding claim 12, Holmes discloses a mobile virtual network operator platform for providing a plurality of wireless applications from one or more wireless application operators to one or more personal communication system carriers, the network operator platform comprising: one or more short message service centers; a short message service center interface, comprising a microprocessor and memory, that enables the network operator platform to communicate with the one or more personal communication system carriers through the one or more short message service centers using one or more air interface access techniques; and an application aggregation device, comprising a microprocessor and memory, that enables the network operator platform to communicate with said one or more wireless applications operators, further enabling the network operator platform to provide one or more wireless applications to a plurality of remote user units through said one or more personal communications system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Moran teaches an inter-carrier short messaging service

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Application/Control Number: 10/044,834

Art Unit: 2681

wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [figs. 3, 6; paragraphs 0025, 0027, 0028]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Moran, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Moran and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Moran discusses the need for interoperability across different types of networks [paragraph 0025].

Regarding claim 13, Holmes discloses the network operator platform further comprises an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between the plurality of remote user units and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 14, Holmes discloses the network operator platform further comprises an Internet wireless application protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between the plurality of remote user units and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 15, Holmes discloses the plurality of remote user units is selected from the group consisting of remote wireless units, remote telematic units, and remote telemetry units [fig. 3; col. 3: lines 11-14].

Art Unit: 2681

Regarding claim 16, Holmes discloses the network operator platform further comprises: one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; a mail client function that enables remote user units to communicate with other remote units by way of electronic mail services; a message processor that reads all messages coming into said network operator platform [fig. 3]. Further regarding claim 16, Drory discloses a cross-operator router that enables transmission of at least one of voice and data messages even if transmission requires formatting said at least one of voice and data messages into a second air interface protocol [fig. 1: ref. 26].

Regarding claim 17, Holmes discloses the message processor includes a message routing function, whereby a plurality of messages is routed to the destined PCS carrier [col. 18: lines 43-47].

Regarding claim 18, Drory discloses the cross-operator router includes a crosstechnology handling function, whereby a plurality of messages can be delivered to the destined PCS carrier [paragraph 0003].

Regarding claim 19, Holmes discloses the network operator platform further comprises at least one billing engine [fig. 3: ref. 302].

Regarding claim 20, Holmes discloses a method of providing a plurality of wireless applications from one or more wireless application operators to one or more personal communications system carriers, the method comprising the steps of: providing a virtual mobile network operator platform; providing a short message service center interface, comprising a microprocessor and memory, that enables said network operator platform to communicate with the one or more personal communication system carriers through one or more short message

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Application/Control Number: 10/044,834

Art Unit: 2681

service centers using one or more air interface access techniques; and providing an application aggregation device, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more wireless application operators, further enabling the network operator platform to provide one or more wireless applications to said one or more personal communication system carriers [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Moran teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [figs. 3, 6; paragraphs 0025, 0027, 0028]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Moran, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Moran and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Moran discusses the need for interoperability across different types of networks [paragraph 0025].

Regarding claim 21, Holmes discloses the method further comprises the step of providing an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between said one or more

Art Unit: 2681

personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding claim 22, Holmes discloses the step of providing an Internet wireless access protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between said one of more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding clam 23, Holmes discloses providing one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; providing a mail client function; and providing a message routing function [fig. 3]. Drory discloses providing a cross-technology handling function [fig. 1: ref. 26].

Regarding claim 24, Holmes discloses the step of providing one or more billing engines [fig. 3: ref. 302].

Regarding claim 25, Holmes discloses a method of providing a plurality of wireless applications form one or more wireless application operators to one or more remote users of one or more personal communication systems, the method comprising the steps of: providing a virtual mobile network operator platform; providing a short message service center interface, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more remote uses of said one or more personal communication systems through one or more short message service centers using one of more air interface access techniques; and providing an application aggregation device, comprising a microprocessor and memory, that enables said network operator platform to communicate with said one or more wireless application operators, further enabling the network operator platform

Art Unit: 2681

Application Control Hamber: 16/6 11;66

to provide one or more wireless applications to one or more remote users of said one or more personal communication systems [figs. 1-3; col. 2: line 47 – col. 4: line 38].

What Holmes does not specifically disclose is that the personal communication carriers operate using a plurality of air interface protocols and the network operator provides a plurality of wireless applications. However, Moran teaches an inter-carrier short messaging service wherein a short message service center interface enables communication between one or more personal communication system carriers using multiple air interface protocols [figs. 3, 6; paragraphs 0025, 0027, 0028]. Further Drory teaches an application aggregator that enables providing a plurality of wireless applications to a plurality of users [fig. 1; paragraph 0003].

Holmes, Moran, and Drory are combinable because they are from the same field of endeavor, that is, wireless messaging. At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Holmes to include Moran and Drory. The motivation for this combination as suggested by Drory, would have been to provide a means to allow for communication with and handling of messages of different formats and protocols [paragraph 0002]. Further, Moran discusses the need for interoperability across different types of networks [paragraph 0025].

Regarding claim 26, Holmes discloses the method further comprises the step of providing an Internet wireless access protocol gateway that converts and reformats a first text language to a second text language to enable communication of data information between said one or more remote users of said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Art Unit: 2681

Regarding claim 27, Holmes discloses the step of providing an Internet wireless access protocol gateway that converts and reformats a first binary language to a second binary language to enable communication of data information between said one of more remote users of said one or more personal communication system carriers and one or more Internet Service Providers [col. 3: lines 55-63].

Regarding calm 28, Holmes discloses providing one or more databases, wherein said one or more databases comprises at least one of a message database and a subscriber database; providing a mail client function; providing a message routing function [fig. 3]. Drory discloses providing a cross-technology handling function [fig. 1: ref. 26].

Regarding claim 29, Holmes discloses the step of providing one or more billing engines [fig. 3: ref. 302].

Response to Arguments

3. Applicant's arguments with respect to claims 1-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lorello et al., US Patent Number 6,208,870, disclose short message service notification forwarded between multiple short message service centers.

Art Unit: 2681

Yu et al., US Patent Number 6,535,746, disclose supporting short message services in a wireless number portability environment.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika A. Gary whose telephone number is 703-308-0123. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, supervisor Nay Maung can be reached on 703-308-7745. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750 or to the 2600 Customer Service Office at 703-306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for informal or draft communications, please label "PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive Arlington, VA., Sixth Floor (Receptionist).

Art Unit: 2681

EAG July 7, 2004

Page 13

PATENT EXAMINED